08/897,44/5



## UNITED STATES ARTMENT OF COMMERCE Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

| <u>D</u>  | APPLICATION NUMBER   | FILING DATE                     | FIRST NAMED APPLICANT                  | ATTORNEY DOCKET NO.  |
|-----------|--|---------------------------------|--|--|
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| Ä         | 08/897,441   | 07/21/97 FIB                    | I                                      | <u>M 5552.095</u> 3-   |
| >         | •  |                                 |  | EXAMINER   |
| AVAILABLE | ETNNEGAN HE  | NDERSON FARABOW                 | HM12/0516                              | ACT INIT   |
|           | AND DUNNER   | WARKSON FAKAROM                 | GARRETT                                | ART UNITOHN SOURCER NUMBER                                     |
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|           | The last and the second and the second   |                                 | the effect                             | 05/16/00   |
| 3         | This is a communication from the examiner in charge of your application.  COMMISSIONER OF PATENTS AND TRADEMARKS |                                 |  |  |
| بر<br>ا   |  | OFFICE A                        | CTION SUMMARY                          |  |
| COP\*     | Responsive to communication(s) filed on 31, 1998   |                                 |  |  |
| (         | This action is FINAL.  |                                 |  |  |
| <u></u>   |  | ndition for allowance except    | for formal matters, <b>prosecution</b> | as to the marite is elected in                                 |
| _ a       | accordance with the practice   | under Ex parte Quayle, 1935     | 5 D.C. 11; 453 O.G. 213.               | as to the ments is closed in                                   |
|           |  |                                 | to expire                              | month(s), or thirty days,<br>ne period for response will cause |
| the a     | pplication to become aband   | oned. (35 U.S.C. § 133). Ex     | tensions of time may be obtaine        | d under the provisions of 37 CFR                               |
| 1.13      |  |                                 |  |  |
| Disp      | osition of Claims  | 7 9-12 14-2                     | 23                                     | is/are pending in the application                              |
| 4         |  | •                               |  |  |
|           |  |                                 |  | _ is/are withdrawn from consideration                          |
| A         | Claim(s)   | 4 9-12 14-                      | 33                                     | is/are allowed.  |
| 7         |  |                                 |  |  |
|           |  |                                 |  | is/are objected to.  |
| ات        |  |                                 | are subje                              | ct to restriction or election requiremen                       |
| App       | lication Papers  | D-4                             | D. 1: DTO 040                          |  |
|           |  | Draftsperson's Patent Drawi     |  |  |
|           |  |                                 | is/are objected                        | •  |
|           |  |                                 |  | is approved disapproved  |
|           | The specification is objected  | •                               |  |  |
|           |  | objected to by the Examiner.    |  |  |
| _         | rity under 35 U.S.C. § 119   |                                 |  |  |
| _         |  |                                 | nder 35 U.S.C. § 119(a)-(d).           |  |
| Ц         | _  | or the CEHTIFIED copies         | of the priority documents have         | been   |
|           | received.  |                                 |  |  |
|           |  |                                 | per)                                   |  |
|           |  |                                 | ternational Bureau (PCT Rule 1         | 7.2(a)).   |
| _         | ·  |                                 |  |  |
|           | _  | f a claim for domestic priority | under 35 U.S.C. § 119(e).              |  |
|           | chment(s)  |                                 |  |  |
| <u></u>   | Notice of Reference Cited  |                                 |  |  |
| Ĺ.,       |  | tement(s), PTO-1449, Paper      | No(s)                                  |  |
|           | Interview Summary, PTO-  | 413                             | . A also f                             | 10. 100 948 was +  |
| (         | Notice of Draftsperson's P   | atent Drawing Review, PTO-      | 948 -> replace inn                     | /freviors 948 was to apple                                     |
| Ξ         | Notice of Informal Patent A  | Application, PTO-152            |  | a or mound of the  |

Claims 5 and 10 have been amended.
 Claim 8 has been canceled.
 Claims 5-7, 9-12 and 14-23 are pending.

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. The rejection of claim 10 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter is withdrawn.
- 4. The rejection of claim 5, 17 and 23 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is withdrawn.
- 5. The rejection of claims 7 and 19 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 5,712,370 is maintained. Additionally, claims 6, 11, 17, 18, 20 and 21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 5,712,370. Although the conflicting claims are not identical, they are not patentably distinct from each other because the monoclonal antibodies of claims 1 and 2 of U.S. Patent No. 5,712,370 anticipate the broadly claimed "antibodies" of claims 6 and 17-18 and the diagnostic aids and pharmaceutical compositions of claims 11 and 20-21, whose only identified components are said antibodies.
- 6. The rejection of claims 5, 6, 10-12, 18, and 23 under 35 U.S.C. 102(b) as being anticipated by Lin (US PN 4,703,008) is withdrawn. The rejection of claims 17, 20 and 22 under 35 U.S.C. 102(b) as being anticipated by Lin (US PN 4,703,008) is maintained. It is noted that claims 17, 20 and 22 are broadly drawn to antibodies "directed against epitopes that binds

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(sic) to the EPO receptor" and are not limited to any specific peptide and need not neutralize the biological activity of EPO. Thus, more likely than not, one of the three antibodies disclosed in col.36 (all generated by immunization with peptides 41-57, 116-128 or 144-166, and all of which immunoprecipitate intact EPO) binds to a region of EPO that interacts with the EPO receptor and is the same as that claimed.

The rejection of claims 9, 14-16 under 35 U.S.C. 103(a) as being unpatentable over Lin 7. (US PN 4,703,008) is withdrawn. The rejection of claim 21 under 35 U.S.C. 103(a) as being unpatentable over Lin (US PN 4,703,008) is maintained. Applicant argues that "the obviousness of storing Lin's antibodies in pharmacologically acceptable form is irrelevant to the issue of whether the claimed antibodies, pharmaceutical compositions and diagnostic aids would have been obvious to one of skill in the art" is not found persuasive. Applicant is referred to the above paragraph, which explains that Lin's antibodies are the same as the claimed antibodies.

## **NEW REJECTIONS**

Claims 5, 9, 12, 1 4-16 and 23 are rejected under 35 U.S.C. 112, second paragraph, as 8. being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation "142 to 166 (P2) in claim 5 is vague and indefinite. It is noted that the specification has been amended to recite "138 to 166 (P2)." Thus, the identity of the start point of the claimed P2 peptide is ambiguous. For examination purposes, claims 5, 12 and 23 are interpreted as written, as being drawn to a P2 peptide of "142 to 166."

In view of the cancellation of claim 8, claims 9 and 14-16, all of which depend from claim 8, are vague and indefinite.

Claims 9 and 14-16 are rejected under 35 U.S.C. 112, first paragraph, as containing 9. subject matter which was not described in the specification in such a way as to enable one skilled Application/Control Number: 08/897,441

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in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specificity of the antibodies of claims 9 and 14-16 is defined by claim 8, which has been canceled. Absent limitations defining the specificity of the claimed anti-idiotypic antibodies, one of skill in the art can not predictably make and use the claimed antibodies without undue experimentation.

- 10. Claims 17, 18, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sytkowski (J.B.C. 262:1161, 1987). Sytkowski discloses antibodies generated by immunization with EPO peptides 99-118 and 111-129 which bind to EPO and neutralize EPO activity (thus, more likely than not these antibodies bind to rejoins of EPO that interact with the EPO receptor, see col.1, p. 1164) and are the same as that claimed. Sytkowski also discloses a method of purifying EPO by using said antibodies (via immunoprecipitation) that is the same as that claimed in claim 22.
- 11. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sytkowski (J.B.C. 262:1161, 1987). The teachings of Sytkowski, of antibodies that bind to EPO, is discussed in the paragraph above. Sytkowski does not teach monoclonal antibodies or pharmaceutical antibodies. However, both such modifications are well known and standard to one of skill in the art, once an antibody has been generated.
- 12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Johnson whose telephone number is (703) 305-5860. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (703) 308-3995. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

May 15, 2000

NANCY A. JOHNSON, PH.D PRIMARY EXAMINER